

BARNEBYDENDRON, A NEW GENERIC NAME (FABACEAE, CAESALPINIOIDEAE, DETARIEAE, BROWNEA GROUP)

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ABSTRACT

A new generic name, *Barnebydendron*, is proposed for *Phyllocarpus* Riedel ex Tul. which is an illegitimate, later homonym of *Phyllocarpus* Riedel ex Endl.

RESUMEN

Se propone el nuevo nombre genérico, *Barnebydendron*, para reemplazar a *Phyllocarpus* Riedel ex Tul., ya que, este nombre es ilegítimo y un homónimo posterior de *Phyllocarpus* Riedel ex Endl.

RESUMO

O novo nome genérico, *Barnebydendron*, é proposto para substituir a *Phyllocarpus* Riedel ex Tul., visto que este nome é ilegítimo e homônimo posterior de *Phyllocarpus* Riedel ex Endl.

In 1842 Endlicher (1842) presented the genus *Phyllocarpus* Riedel ex Endl. on page 97 of the second supplement to his *Generum plantarum*:

6720/1 *Phyllocarpus RID.*

Lonchocarpus pterocarpus DC. Prodr. II. 260. typum distincti generis (*Phyllocarpus* Riedel nsc.), a *Platymiscium* et *Miscolobium* (Gen. pl. n. 6719 et 6720) leguminis membranacei sutura vexillari alata diversi, constituit.

Endlicher validly published *Phyllocarpus* with a single element, *L. pterocarpus*, which is automatically the type of the genus. He distinguished it from *Platymiscium* Vogel and *Miscolobium* Vogel (= *Dalbergia* L. f.) by its membranous legume with the vexillary suture variously winged. *Lonchocarpus pterocarpus* DC. (= *Deguelia scandens* Aubl.) has winged fruits that are somewhat fragile (MacBride 1943), and so the diagnosis could well describe material of *L. pterocarpus*.

In 1843 Tulasne (1843) described *Phyllocarpus* Riedel ex Tul., specifically excluding Endlicher's *Phyllocarpus*, "non Endl. Gen. Supp II, p. 97, n. 6720." He also described *P. riedelii* Tul. with a short description using no.

1022 in Guillemin's Brazilian herbarium, and since it was the only species in the genus, it is the type of *Phyllocarpus* Riedel ex Tul. In 1844 Tulasne (1844) republished his generic description verbatim, amplified the description of *P. riedelii*, discussed the generic relations of *Phyllocarpus*, and illustrated the species. He also stated that specimen no. 1022 in the Guillemin herbarium was a Riedel collection. Apparently Tulasne examined Riedel's collection in Guillemin's herbarium, and noted that Endlicher's *Phyllocarpus* did not correspond to what Riedel had intended. Therefore he redescribed *Phyllocarpus* using the material of Riedel, and thereby created a second *Phyllocarpus* which is a later, illegitimate homonym.

Geesink (1984) separated *Deguelia* Aubl. from *Derris* Lour., and placed all the American species of *Derris* in *Deguelia*, including *L. pterocarpus*. He cited Endlicher's *Phyllocarpus* as a later synonym of *Deguelia*. The type of Endlicher's *Phyllocarpus* is now a later synonym of *Deguelia scandens* with the following synonymy:

Deguelia scandens Aubl., Hist. pl. Guiane 2:750, t. 300. 1775.

Lonchocarpus pterocarpus DC., Prodr. 2:260. 1825.

Derris guianensis Benth., J. Linn. Soc., Bot., 4, suppl.:106. 1860.

Derris scandens (Aubl.) Pittier, Contr. U.S. Natl. Herb. 20:41. 1917, non *Derris scandens* Benth., 1860.

Derris pterocarpa (DC.) Killip, J. Wash. Acad. Sci. 26(9):360. 1936.

This species is used as a fish poison (Killip 1936; Uphof 1968) in northern South America.

In 1912 Tulasne's *Phyllocarpus* was discovered in Guatemala, and John Donnell Smith (1913) mistakenly described it as a new species, *P. septentrionalis* Donn. Sm. It was later discovered as far south as Panama (Standley & Steyermark 1946; Woodson & Schery 1951; Holdridge & Poveda 1975). Barneby (1996) reviewed the genus, and concluded that it is monotypic and that *P. septentrionalis* is a later synonym of *P. riedelii*.

Phyllocarpus in the sense of Tulasne has traditionally been accepted as a genus in the Fabaceae. It has been used in systems of legume classification (Bentham 1865; Hutchinson 1964; Cowan & Polhill 1981; Polhill 1994), floras (Bentham 1870; Britton & Rose 1930; Standley & Steyermark 1946; Woodson & Schery 1951; Holdridge & Poveda 1975; Isely 1975), and morphological studies (Gunn 1991). From the descriptions in these works, it is obvious that the authors mentioned above were referring to *Phyllocarpus* Riedel ex Tul. However, in Britton and Rose (1930) and Woodson and Schery (1951) its place of publication was given as the second supplement to Endlicher's *Generum plantarum* (1842), and also in Britton and Rose (1930) its type was cited as "Phyllocarpus Pterocarpus Riedel," an unpublished epithet.

Iseley (1975) was the first to note that Tulasne's *Phyllocarpus* was a later homonym of Endlicher's *Phyllocarpus*, and therefore illegitimate. Barneby (1996) also recognized that Tulasne's *Phyllocarpus* was illegitimate. Therefore the following new name is presented for Tulasne's *Phyllocarpus*:

Barnebydendron J.H. Kirkbr., nom. nov. *Phyllocarpus* Riedel ex Tul., Ann. Sci. Nat. Bot., sér. 2, 20:142. 1843, non *Phyllocarpus* Riedel ex Endl., 1842. TYPE: *Phyllocarpus riedelii* Tul. (= *Barnebydendron riedelii* (Tul.) J.H. Kirkbr.).

Barnebydendron riedelii (Tul.) J.H. Kirkbr., comb. nov. *Phyllocarpus riedelii* Tul., Ann. Sci. Nat. Bot., sér. 2, 20:143. 1843. TYPE: BRAZIL. Rio de Janeiro, L. Riedel s.n. (Catal. herb. Bras. Guillemin No. 1022 [Tulasne 1844]) (HOLOTYPE: P.n.v.; ISOTYPE: US!).

Phyllocarpus septentrionalis Donn. Sm., Bot. Gaz. 55:433. 1913. TYPES: GUATEMALA. Departamento Zacapa: Gualán, Feb 1912 (fl), W.P. Cockerell s.n. (LECTOTYPE, US861342! [Standley and Steyermark 1946; labelled by Standley as "type"]); ISOLECTOTYPES, US1337584! [fragments], US1337585! [fragments]; May 1912 (fr), E. Morris s.n. (PARATYPES, US1337586! [fragments], US1337587!, US1337588!).

I take great pleasure in dedicating this genus to Rupert C. Barneby who has contributed so much to legume systematics. During my doctoral studies, I shared an office with Rupert at the New York Botanical Garden, Bronx, New York. Rupert taught me many things, and significantly contributed to my botanical training.

In his review Barneby (1996) gave the distribution of *B. riedelii* as Central America from Guatemala to Panama, the Purús basin in the southwestern Brazilian Amazon, and the vicinity of Rio de Janeiro. It has recently been collected in Amazonian Peru (*N. Begarzo* 150, 20 May 1980 [US]) and Venezuela (*J. Lissot* s.n., 24 Nov 1975 [US]) partially filling the gap between Central America and the southwestern Brazilian Amazon. Barneby (1996) cast doubt on whether it was native to the vicinity of Rio de Janeiro. As far as he knew, it has not been collected as a wild plant near Rio de Janeiro.

Barnebydendron has been reported as cultivated in southern Florida, Cuba, Guatemala, Costa Rica, and Panama. Wild trees are 15–35 m tall, and cultivated flowering specimens are 5–12 m tall. It flowers in the dry season without leaves, and is full of flowers that are described as various shades of intense red. Standley and Steyermark (1946) stated, "in general appearance and in the color of its blossoms this tree suggests poinciana (*Delonix*) and is almost equally showy," and Woodson and Schery (1951) wrote, "the abundant scarlet flowers rivaling in showiness those of the Royal Poinciana (*Delonix regia*)."¹ This beautiful tree merits more widespread cultivation.

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